

PROCESSES FOR PREPARING CALCIUM CARBONATE

ABSTRACT

Inexpensive spindle- or rice-like calcium carbonate giving useful properties for brightness, opacity and wire abrasion resistance as a paper filler is provided by taking advantage of the causticization step. When a white liquor is used for slaking a quick lime, the quick lime used in the slaking reaction of a first step has a calcium carbonate content of 10% by weight or less and is slaked with the white liquor at a concentration of 20 to 60% to prepare a milk of lime. When a green liquor is used for slaking a quick lime, the quick lime used in the slaking reaction of a first step has a calcium carbonate content of 0.1 to 10% by weight and is slaked with the green liquor at a concentration of 20 to 60% to prepare a milk of lime. In a second step, causticization reaction takes place at a green liquor loading rate of 0.02 to 0.5 cc (green liquor) /min/g (quick lime) at a reaction temperature of 20 to 105°C to afford spindle- or rice-like calcium carbonate.